DOCUMENT RESUME

ED 202 441 HE 013 981

AUTHOR Ahmed Shami, Mohammad Ansar; And Others
TITLE Relationship of Students' Course Loads with Their Grade Point Average Scores.
INSTITUTION King Abdulaziz Univ., Makkah (Saudi Arabia).
PUB DATE Jan 80
NOTE 15p.; Prepared through the Office of Institutional Research.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; *College Credits; *Credit Courses; Departments; Foreign Countries; *Grade Point Average; Higher Education; *Undergraduate Students
IDENTIFIERS *College of Shariah (Saudia Arabia); *Course Load

ABSTRACT

The relationship between course loads and grade point average (GPA) was studied in 1978-79 for undergraduate students at the College of Shariah of King Abdulaziz University, Saudia Arabia. Three groups of students were compared, based on the number of credit hours earned: 11 or less credit hours, 12 to 17 credit hours, and 18 or more credit hours. Findings are presented separately for six departments. The differences between means of the three groups for each department were found to be statistically significant. As the credit loads of the students increased, their mean GPAs also increased. The results may indicate that the subjects did not exceed the optimum course load, or that students who have high GPAs tend to take more courses. It is suggested that further research is needed to determine whether high achievers tend to take more courses and low achievers tend to take fewer courses. (SW)

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ED202441

RELATIONSHIP OF STUDENT'S COURSE LOADS WITH THEIR GRADE POINT AVERAGE SCORES

BY

DR. MOHAMMAD ANSAR AHMED SHAMI

DR. MANSOUR AHMED ABO-LABAN

MR. MOHAMMAD BAKHTIAR AHMED SHAMI

OFFICE OF INSTITUTIONAL RESEARCH

KING ABDULAZIZ UNIVERSITY

MAKKAH CAMPUS

JAN. 1980.

IE 013 981

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A C K N O W L E D G E M E N T S :

The writers feel grateful to Dr. Nasir Al-Salih, Dean of Registration for his cooperation in providing the data for the study. Dr. Farook Abdul-Salam, Deputy Director of Center for Research in Education and Psychology, College of Education at Makkah, deserves sincere appreciation for his help in data analysis. Special thanks are also due to Mr. Tajud-Din Al-Sawwas, Director Computer Section for sparing Mr. Mohammad Bakhtiar Ahmed Shami's time to work for completing this study.

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بسم الله الرحمن الرحيم

Relationship of Student's Course Loads with Their Grade Point Average Scores

INTRODUCTION:-

Institutions of higher education, like other educational institutions, have the major responsibility of helping students realize their potential. One of the important ways through which institutions of higher education help the students is establishment of students advisory system. Usually every student is assigned to a faculty advisor who is supposed to help students in multiple manners. Although the functions of faculty advisors are quite complex it is only the academic field in which they help the students most often. For the academic goals of students, faculty advisors help students in selecting relevent courses and in taking appropriate course load for a given semester. For the course load faculty advisors usually hold to the notions of: too little course load, optimum course load and too much course load for an average student.

Depending upon what faculty advisors believe constitutes too little, optimum, and too much course load, they advise their students to take certain amount of course loads. At some campuses, the faculty members have a fairly common notion of optimum course load for both undergraduate and graduate levels, and the faculty advisors usually tend to prescribe a fairly standardized doze of course load for most of their students. The assumption underlying the notion of optimum course load or otherwise, is based upon the conception of the relationship between course load and the academic achievement of students.

For example, other things being equal, a course load will cease to be optimum and will become too much if by taking it student's academic achievement will be adversally affected. On the other hand, a course load will become "too little" if by taking it student's academic achievement does not get affected but he gets more free time than he should have. Whereas the optimum course load is that load under which, other things being equal, student's academic achievement remains at the desired level and he devotes as much time to his studies as expected.

The assumption underlying the notion of optimum course load or otherwise is seldom empirically tested. It is quite possible that since the study habits of students and teaching styles of teachers vary from culture to culture, the notion of optimum course load may vary from culture to culture and from student to student. The study at hand was organized to examine the relationship between student's course loads and their academic achievement with the hope that the study findings might help in the definition of optimum course load for students of the College of Shariah of King Abdulaziz University, Makkah Campus.

PURPOSE:

The purpose of the study was to determine the relationship between the course loads of students with their grade point average (GPA) scores.

PROCEDURES:

The following procedures were followed to undertake the study.

Selection of Subjects

All undergraduate students registered in various departments of College of Shariah during the first semester of the year 1398-99 (Hijri) 1978-79 (A.D.) were included in the study. The breakdown of the number of students by every department is provided below.

Department	Number of Students
EL-HADARA	63
HISTORY	100
EL-SHARIAH	295
EL-DAWA	56
ARABIC LANGUAGE	85
EL-QADA	36

Data Collection

With the cooperation of the Registrar's office, student records were consulted and for every student included in the study, the number of credit hours he earned during the first semester of the year 1398-99 (Hijri) 1978-79 (A.D.), and his grade point average score for this semester were gathered.

Data Analysis

On the basis of the number of credit hours students earned, they were classified into three groups.

Group A : those who earned 11 or less credit hours.
Group B : those who earned from 12 to 17 credit hours.
Group C : those who earned 18 or more credit hours.

The maximum hours earned by any students were 22.

In order to determine the relationship between course loads of students with their respective grade point average (GPA) scores, the difference between the mean GPA scores of the three groups (i.e. Group A, B & C) were tested by analysis of variance for five of the six departments referred earlier. Whenever the F ratio appeared to be significant, t test was applied to further determine the significance of the difference between the mean GPA scores of every combination of the two groups of students within each department (i.e. within a department difference between group A & B; A & C; B & C). For the sixth department (Qada department) there were only three students in group A and therefore, t test was applied to determine the significance of difference between means of group B and group C.

R E S U L T S :

In the following, results of the data analysis have been presented for each department separately. First the results of analysis of variance showing the significance of difference between the means for

the three groups, A, B & C of the five departments have been presented and subsequently, for each of these five departments the result of t test showing the significance of difference between the means of every combination of two groups have been presented. For the sixth department El-Qada only result of t test are provided.

EL-HADARA:

The number of students from El-Hadara department falling within the three groups and the respective means, and standard deviation of each of these groups are given below.

	Groups		
	A	B	C
Number of Students	15	33	15
Means (GPA)	1.10	2.28	2.80
Standard Deviations	.47	.63	.58

The application of analysis of variance provided the results given in Table I.

TABLE I.

Analysis of variance for the three groups of El-Hadara Department.

Sources	Sum of Squares	Degrees of Freedom	Mean Square	F Value
Between	23.31	2	11.66	33.3
Within	20.87	60	0.35	
Total	44.18			

The F value is significant at .001 level. Consequently t test was applied to further determine the significance of difference between means of various combinations of every two groups. The results obtained are provided below in Table II.

TABLE II.

Results of t test for El-Hadara Department.

Groups	t Value	Significance level
A & B	7.22	Significant at .001 level
A & C	8.81	Significant at .001 level
B & C	2.89	Significant at .01 level

The data presented above indicates that the differences between means of groups: A and B; A and C, and B and C are highly significant.

HISTORY:

The number of students from History department falling within the three groups and the respective means and standard deviations of each of these groups are given below:

	Groups		
	A	B	C
Number of students	16	53	31
Means (GPA)	1.30	2.22	2.57
Standard Deviations	.50	.58	.43

The analysis of variance conducted for the History department provided results given in Table III.

TABLE III.

Analysis of variance for the three groups of History Department.

Sources	Sum of Squares	Degrees of Freedom	Mean Square	F Value
Between	17.14	2	8.57	30.86
Within	26.94	97	0.2777	
Total	44.08			

The F value is significant at .001 level. Consequently, t test

was applied for further detailed analysis of the data. The results obtained are provided below in Table IV.

TABLE IV.

Results of t test of History Department.

Groups	t Value	Significance level
A & B	6.22	Significant at .001 level
A & C	8.66	Significant at .001 level
B & C	3.17	Significant at .01 level

The data presented above shows that the differences between groups: A and B; A and C; and B and C are highly significant.

EL-SHARIAH:

The number of students from Shariah department falling within three groups and the respective mean and standard deviations of each of these groups are given below:

	Groups		
	A	B	C
Number of Students	31	136	128
Means (GPA)	1.58	2.64	2.96
Standard Deviations	.5	.63	.5

The results of the analysis of variance for the Shariah department are provided in Table V.

TABLE V.

Sources	Sum of Squares	Degrees of Freedom	Mean Square	F Value
Between	47.16	2	23.58	73.07
Within	94.23	292	o.3227	
Total	141.39			

The F value is significant at .001 level. Therefore, t test was

applied for further analysis. The results of t test are provided in Table VI.

TABLE VI.

Results of t test.

Groups	t Value	Significance Level
A & B	10.15	Significant at .001 level
A & C	14.6	Significant at .001 level
B & C	4.57	Significant at .001 level

The data presented above reveals that the differences between the means of groups: A & B; A & C and B & C are highly significant.

EL-DAWA:

The number of students falling within three groups from the department of El-Dawa, and the respective means and standard deviations of each of these groups are given below:

	Groups		
	A	B	C
Number of Students	9	34	13
Means (GPA)	1.98	2.59	3.45
Standard Deviations	0.73	0.63	0.32

The results of analysis of variance conducted for the students of El-Dawa department are provided in Table VII.

TABLE VII.

Analysis of variance for the three groups of El-Dawa Department.

Sources	Sum of Squares	Degrees of Freedom	Mean Square	F Value
Between	12.59	2	6.295	17.58
Within	18.97	53	0.358	
Total	31.56			

The F value is significant at .001 level. Consequently, t test

was applied to find the significance of difference between the means of every two group combinations. The results of t test are given below:

TABLE VIII.

Results of t test.

Groups	t Value	Significance Level
A & B	2.29	Significant at .05 level
A & C	18.53	Significant at .001 level
B & C	6.26	Significant at .001 level

The data presented in Table VIII reveals that the differences between the means of groups: A & C and B & C are highly significant, whereas the differences between groups A & B are significant at .05 level.

ARABIC LANGUAGE:

The number of students from the department of Arabic Language falling within three groups and the respective mean and standard deviation[8] for each groups are given below:

	Groups		
	A	B	C
Number of Students	7	37	41
Means (GPA)	1.41	2.56	3.02
Standard Deviations	0.91	0.54	0.57

Analysis of variance conducted for the Arabic Language department data provided results given in Table IX.

TABLE IX.

Analysis of variance for the three groups of Arabic Language Department.

Sources	Sum of Squares	Degrees of Freedom	Mean Square	F Value
Between	16.3	2	8.15	
Within	29.66	82	0.3615	22.54
Total	45.96			

The F value is significant at .001 level. Therefore, t test was applied to determine the significance of difference between the means of every combination of two groups. The results of t test are given below:

TABLE X.

Results of t test.

Groups	t Value	Significance Level
A & B	3.23	Significant at .01 level
A & C	4.53	Significant at .001 level
B & C	3.66	Significant at .001 level

The results of t test reveal that the difference between the means of the groups: A & C; and B & C are significant at .001 level, whereas the difference between means of groups A & B is significant at .01 level.

EL-QADA:

For the department of Qada only three students earned eleven or less credit hours. Therefore, for this department the category of group A was dropped and for the remaining two groups t test was applied to determine the significance of difference between their means. The results of t test are provided below in Table XI.

TABLE XI.

Results of t test for Department of El-Qada.

Groups	Number of Students	Means	Standard Deviation	t Value	Significance Level
B	8	2.35	.83	2.85	Significant at .01 level
C	28	3.23	.51		

The data presented in Table XI shows that the difference between means of groups B and C are significant at .01 level.

DISCUSSION:

The results of data analysis, reported earlier, show that the differences between the means of three groups for each department were statistically significant. Also differences between the means of every combination of two groups for every department were statistically significant. Further it was noted that as the credit loads of the students increased from one group to another (i.e.A to B and B to C) their mean GPA s also increased. This trend towards the increase in GPA with the increase in the course load of students can not be considered as a function of the course load students take. This is, because, rationally speaking, students GPA s (other things being equal) should not be affected by their course loads subject to the condition that the course load is optimum or less for every student. However, as the course load would exceed the optimum limit for a given student, it should adversally affect his academic achievement. Thus, after crossing the optimum limit, the course loads should have an inverse relationship with the GPA s of students. However, the results of study did not reveal any inverse relationship between students course load and their GPAs. This could mean that the students involved in the study, generally speaking, did not cross the limits of optimum course load.

Further, instead of inverse relationship, a corresponding increase in students' GPAs with the increase in their course load indicates that it may not be the course load which affects GPA s rather course load students take could be the function of their GPAs. This means that high achieving students (having high GPAs) tend to take more course loads and as the achievement level goes down the course loads of the students also tends to get lower and lower.

CONCLUSIONS AND RECOMMENDATIONS:

The conclusions drawn from the findings of this study and some recommendations are given below:

1. The limits of optimum course loads for students of College

of Shariah can not be defined in general terms. Rather, it is recommended that faculty advisors should encourage students to experiment with various course loads and help each student identify course load which is optimum for him / her.

2. The findings of the study showed that as the course loads of students increased their GPA s also increased. However, the researchers have no rational base to suggest that this study establishes any causal effect of student's course loads on their GPAs. Rather the hypothesis of reverse causality (indicating it may not be A causing B, rather B causing A) generally applicable in causal comparative studies suggesting that instead of course load affecting the students GPA, it may be the GPAs of students which might affect the course load they take is advanced. It is recommend that a separate study may be conducted to test this hypothesis.

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